

Application No. 09/938,011
Amendment dated 7/16/03
Reply to Office Action of 4/17/03

Remarks

This Amendment is in response to the Office Action dated April 17, 2003 and is due on or before July 17, 2003.

Claims 1-4, 8-10 and 12-23 were rejected as obvious over Kleeberger et al (Kleeberger), United States Patent 6,248,052 in view of Cumming, United States Patent 6,503,275.

Applicant notes with appreciation the indication Claims 5-7 and 11 contain patentable material. Claims 5 and 11 have been placed in independent form.

The Kleeberger patent teaches an air bag folding system in which an air bag is folded into a cover utilizing a telescoping piston. Kleeberger utilizes rotatable bending elements 32, which rotate outwardly and bend or deform sides of his cover. This method and apparatus for holding a cover differs from that shown in the present invention. Another feature of the present invention believed not shown in the Kleeberger reference is the ability to angularly orient the cover. Kleeberger appears to show an amorphous cover with indistinguishable features and he does not address how or if the cover should be oriented relative to the folding apparatus or to the housing or to the air bag; this orientation ability is part of the present invention.

One of the major differences between Kleeberger and the present invention is the "ram." In the present invention an arcuately movable link associated with the ram moves through a slit in the tube. This is not the case with Kleeberger; his ram is a piston 18 that moves through the center of another piston or cylinder or tube 12. Additionally, the center of the tube 12 is not a "slot." Another major departure from the present invention is Kleeberger's tube 12, which moves as part of the folding process while the tube or housing of the present invention remains fixed. It is the piston or ram of the present invention that moves through a stationary tube.

The patent to Cumming relates to a foldable intraocular lens (and insertion mechanism) and it is extremely difficult to see how one skilled in the art of folding an air bag would be driven, or motivated or even realize intraocular lenses might be similar to air bag housings, inflators and covers. In view of the above it is respectfully urged that this reference be withdrawn. In the rejection it was mentioned that notice was being

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taken that "it is well known in the art to pivot elements for adjustability." Applicant respectfully requests clarification of this statement, as he does not see the relevance to the present invention. The rejection also states "It would have been obvious to one of ordinary skill in the art at the time of the invention to provide Kleeberger et al with ram moving means as taught by Cumming to provide for optimal folding."

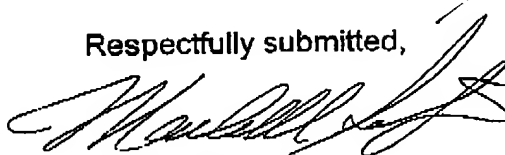
The rejection mentions Cumming shows an apparatus that folds a workpiece into a compact folded configuration. The word "compact" is relative. The "workpiece" of Cumming is only 6-8 mm in diameter (relatively compact to begin with). An air bag is significantly larger; it would be rather special to achieve such a small folded air bag. The Office Action also relates Cumming shows the compression by ram means 36 that engage a curved arcuate wall as disclosed in column 6, lines 28. It is respectfully urged the ram 36 of Cumming does not seem to engage any arcuate wall. The ram includes an arcuate end face 48 which is moved toward a bore 30 and in doing so picks up the lens 16 and the flat plate hapties 46 and folds the lens over as though it were a pancake or Taco. As mentioned there does not seem to be an engagement with a curved arcuate wall. Further, the Office Action relates "The curved tube is upwardly and downwardly as shown in figure 20", applicant respectfully requests a further explanation of this phrase. The Office Action further states "Since the ram is moving about a curved path, the examiner infers that the ram is moving in a radial manner." Reference is made to Figure 25, which clearly illustrates the interrelationship between Cumming's ram 36 and a cooperating receptacle 22. The ram 36 seems to be rectangular in shape and as such one would not expect the ram to move in a "radial manner." Additionally the ram 36 appears to be closely fit within opening 42, which is also generally rectangular in cross-section and, as such, this construction seems to negate any radial movement. In view of the above it does not seem as though the ram 36 can move in a radial manner, further showing Cumming is not applicable to the present invention. Applicant refers briefly to Figures 19-21 of Cumming. These figures seem to show some relative movement, however, it is not the ram 36 that is moving in a radial manner but the lens 16 and hapties 46 that are being moved and folded over by the curved end face 48 of ram 36. In view of the above applicant does not see how one skilled in the art would

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have combined Cumming and Kleeberger to achieve the claims of the present invention.

In view of the aforementioned, it is respectfully urged that the present application be reconsidered, the claims allowed, and the case passed to issue.

Respectfully submitted,



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